700

Page 1 Executive Summary M0150040

EXECUTIVE SUMMARY

Date Summary Prepared: April 20, 2009

Mine Name: The Rockland Mine	I.D. Number: M0150040
Operator: Miracle Rock Mining and Research	Date Original Notice Received: June 13, 2003
Address: 400 South 200 East	County: Emery
Emery, Utah 84522	New/Existing: Status changing from small to large
	mine
	Mineral Ownership: SITLA
Telephone: 435-286-2222	Surface Ownership: SITLA
Contact Person: Wayne Western	Lease No.(s): ML-50776
Telephone: 801-538-5263	Permit Term: Life of Mine

Life of Mine:

Legal Description: Township 23 South, Range 6 East, Lots 2 and 3 and SW1/4 NE1/4 and NW1/4 SE1/4 of Section 2

Mineral(s) to be Mined: Humate

Acres to be Disturbed: About 7 acres

Present Land Use: Adjacent areas are currently being used for wildlife habitat and grazing

Postmining Land Use: Grazing and recreation

Variances from Reclamation Standards (Rule R647) Granted: None

Soils and Geology

Soil Description: Most of the salvaged soils are derived from sandstone and interbedded shale. They are thin (A horizon 2 inches thick with bedrock at 7 to 20 inches) and have loam or sandy loam textures. On the slopes, soils are derived from shale, weathered coal, and sandstone. Some of these soils have relatively low pH values and finer textures.

Special Handling Problems: There is some mine waste with pH values as low as 3.3, and this will need to be covered with more basic material.

Geology Description: The mine is in the Upper Cretaceous Ferron Sandstone Member of the Mancos Shale.

There are massive beds of very fine- to fine-grained sandstone, carbonaceous shale, coal, mudstone, and siltstone.

Hydrology

Ground Water Description: The mine site is about 500 feet above the Quitchupah and Muddy Creek drainages which is the boundary of the outcropping aquifer. Recharge comes from the Wasatch Plateau to the west. It is very unlikely the mine would adversely affect ground water.

Page 2 Executive Summary M0150040

Surface Water Description: The mine is entirely within the Muddy Creek drainage system, and runoff from the mine site reports to ephemeral drainages and eventually to Muddy Creek. The plan includes sediment control practices, such as berms, a sediment trap, straw wattles, and diverting runoff away from the mine, to limit the amount of sediment that would enter ephemeral drainages.

Water Monitoring Plan: There is no plan for monitoring water quality.

Ecology

Vegetation Type(s); Dominant Species: <u>Dominant species in the mine area include pinyon, juniper, black sage, shadscale, fourwing saltbush, galleta, Indian ricegrass, and Salina wild rye.</u>

Percent Surrounding Vegetative Cover: 27.0 percent, including both overstory and understory

Wildlife Concerns: None

Surface Facilities: Surface facilities include two portals, the mine pad, soil stockpiles, a fueling area, a 500-gallon fuel tank, and a temporary building.

Mining and Reclamation Plan Summary:

During Operations:

Although there are two portals, the operator is no longer doing underground mining. The operator mines by advancing the highwall. Topsoil is first removed from the top of the plateau, then the sandstone is drilled by hand and blasted. Overburden and ore are then removed by a trackhoe.

After Operations:

Following portal sealing, the highwalls will be backfilled using a trackhoe to pull up sidecast material from below the pad. Toxic or acid-forming materials will be covered during this process. Subsoil and topsoil will then be placed on the fill. Exposed vertical cliffs will be drilled and shot to break the sandstone cap and form large boulders that will collapse on to the reclaimed slope. Any remaining cliffs will blend with cliffs in surrounding areas. Slopes will be approximately 3h:1v. Three ephemeral channels will be created during reclamation. Following grading, the site will be seeded with a mix containing four native and two non-native species, all of which are adapted to the area and compatible with the postmining land use. The area will then by hydromulched with a wood fiber or other acceptable mulch.

Surety

Amount: \$130,428.61 Form: Not yet submitted.

Renewable Term: Escalated to 2013.

PBB:vs

O:\M015-Emery\M0150040-MiracleRock\Draft\exec-2815-04202009.doc